State Maps and Prescriptive Packages

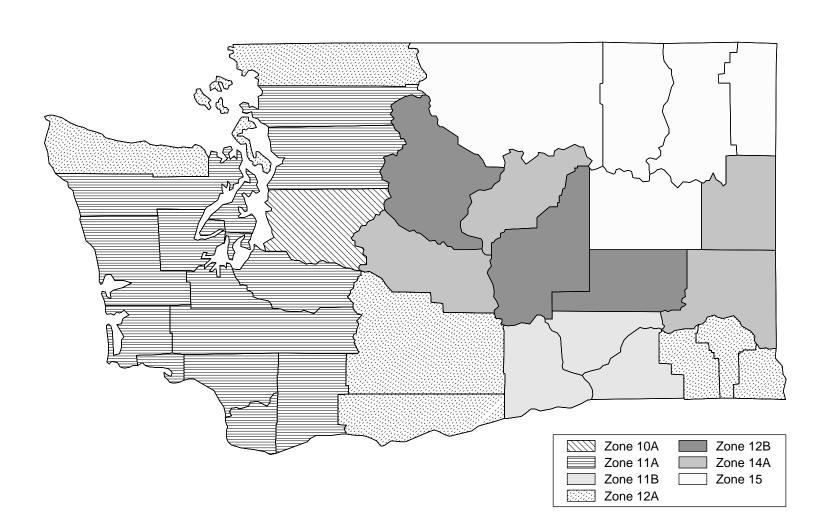
April 2000

The State Maps and Prescriptive Packages contain supporting materials that are needed when using the Envelope and Mechanical Compliance Guides. Insulation and other building envelope requirements and some mechanical system requirements vary by climate. The State Maps divide the United States into 33 different climate zones at a county level. Zones are numbered from 1 through 19 (consistent with the IECC and MEC*check* climate zones) and have a, b, and c designations to reflect climate differences that affect cooling; e.g., cooling degree days and solar radiation. The climate maps are unchanged from Version 1.

To determine the climate zone to use with your building, locate the map for your state and identify the zone number from the legend or county list.

To determine insulation and other building envelope requirements, find the prescriptive package number corresponding to your climate zone. The *Envelope Compliance Guide* employs a package approach that requires all components in your design to meet or exceed the prescribed efficiency levels contained in the prescriptive package. If you find the prescriptive packages too constraining, consider using the COM *check-EZ* software, which allows tradeoffs among building envelope components.

WASHINGTON



Zone County

- 12B Adams 12A Asotin 11B Benton

- 12B Chelan
- 12A Clallam
- 11A Clark
- 12A Columbia
- 11A Cowlitz
- 14A Douglas
- 15 Ferry 11B Franklin
- 12A Garfield 12B Grant
- 11A Grays Harbor
- 12A Island
- 11A Jefferson
- 10A King 11A Kitsap 14A Kittitas 12A Klickitat

- 11A Lewis
- 15 Lincoln
- 11A Mason
- 15 Okanogan
- 11A Pacific 15 Pend Oreille
- 11A Pierce
- 12A San Juan

- 11A Skagit 11A Skamania 11A Snohomish
- 14A Spokane 15 Stevens
- 11A Thurston
- 11A Wahkiakum
- 11B Walla Walla
- 12A Whatcom
- 14A Whitman
- 12A Yakima

Climate Zone 10a

Envelope Component		Fenestration % Window-Wall			m Fenestratio			Fenestration		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
Wells (s.k)	No Framing o	Metal or Framing	Wood or Framing	No Framing o	Metal or Framing o	Wood or Framing	No Framing o	Metal	Wood or Framing	No	Metal	Wood or Framing	
Walls (a,b) Framed Minimum Cavity R-Value (c)	NA NA	11	or Framing	NA NA	or Framing o	or Framing	NA NA	11	or Framing 11	NA	13	or Framing 11	
Any Spacing Minimum Continuous R-Value (d)	NA	0	0	NA	0	0	NA	0	0	NA	3	0	
CMU, 8 in. or greater Minimum Cavity R-Value with Integral Insulation(e) Minimum Continuous R-Value	NA 0	0	0	NA 5	11 0	11 0	NA 5	11 0	11 0	NA 5	11 0	11 0	
All Other Minimum Cavity R-Value	NA NA	11	11	NA	11	11	NA	11	11	NA	11	11	
Masonry Walls(f) Minimum Continuous R-Value	5	0	0	5	0	0	5	0	0	5	0	0	
Windows	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	
Maximum Solar Heat Gain Coefficient	110,000.0		1 10,000.011			. rejection			110,000.0		110,000.011	110,000.0	
Manifester II Foots	Any	Any	Any	0.6	0.7	Any	0.5	0.6	0.7	0.5	0.6	0.7	
Maximum U-Factor	Any	Any	Any	0.7	0.7	0.7	0.6	0.6	0.6	0.4	0.4	0.4	
Skylight (Limit 3% of Roof Area)													
Maximum U-Factor		0.8			0.8			0.8			0.8		
	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	
Roof	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss Minimum R-Value	14		19	16		19	19		25	19		25	
Nonwood Joist/Truss Minimum R-Value	15		19	17		25	20		25	20		25	
Concrete Slab or Deck Minimum R-Value	14		NA	16		NA	19		NA	19		NA	
Metal Purlin with Thermal Break													
Minimum R-Value Metal Purlin without Thermal Break	15		25	17		25	20		30	20		30	
Minimum R-Value	15		х	17		х	20		х	20		30	
	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	
Floor	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss Minimum R-Value	13		19	13		19	13		19	13		19	
Nonwood Joist/Truss Minimum R-Value	13		19	13		19	13		19	13		19	
Concrete Slab or Deck Minimum R-Value	13		NA	13		NA	13		NA NA	13		NA NA	
mmann valde													
Slab Edge or Basement Walls		Insulation			Insulation			Insulation			Insulation		
Minimum R-Value		0			0			0			0		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Where values are shown for both cavity and continuous insulation, both requirements must be met.
- (c) Cavity insulation is insulation between framing members or furring strips and does not refer to integral insulation in CMUs.
- (d) Continuous insulation is insulation that is continuous across structural members, and its effectiveness is undimished by compression or bridging.
- (e) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material. Minimum R-values are in addition to insulation in CMU voids.
- (f) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>
- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

Climate Zone 11a

Envelope Component		Low Fenestration Area (0-10% Window-Wall Ratio)			um Fenestration 25% Window-Wa			Fenestratio		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
Walls (a)	No Framing o	Metal r Framing	Wood or Framing	No Framing	Metal or Framing	Wood or Framing	No Framing o	Metal or Framing	Wood or Framing	No Framing	Metal or Framing	Wood or Framing	
Framed Minimum R-Value	NA	11	11	NA	11	11	NA	11	11	NA	13	11	
Any Spacing CMU, 8 in. or greater With Integral Insulation(b) Minimum R-Value	5	11	11	5	11	11	5	11	11	5	11	11	
All Other Minimum R-Value Masonry Walls(c)	5	11	11	5	11	11	5	11	11	5	11	11	
Windows	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3 _{.5} Projection	
Maximum Solar Heat Gain Coefficient	Any	Any	Any	0.6	0.7	Any	0.5	0.6	0.7	0.5	0.6	0.7	
Maximum U-Factor	Any	Any	Any	0.7	0.7	0.7	0.6	0.6	0.6	0.4	0.4	0.4	
Skylight (Limit 3% of Roof Area)													
Maximum U-Factor		0.8			0.8			0.8			0.8		
Roof	Continuous Insulation	or	Roof Cavity Insulation	Continuous Insulation	or	Roof Cavity Insulation	Continuous Insulation	or	Roof Cavity Insulation	Continuous	s or	Roof Cavity Insulation	
All-Wood Joist/Truss Minimum R-Value	14		19	16		19	19		25	19		25	
Nonwood Joist/Truss Minimum R-Value	15		19	17		25	20		25	20		25	
Concrete Slab or Deck Minimum R-Value	14		NA	16		NA NA	19		NA NA	19		NA NA	
Metal Purlin with Thermal Break Minimum R-Value	15		25	17		25	20		30	20		30	
Metal Purlin without Thermal Break Minimum R-Value	15		х	17		х	20		х	20		30	
Floor	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	
All-Wood Joist/Truss Minimum R-Value	14		19	14		19	14		19	14		19	
Nonwood Joist/Truss Minimum R-Value	14		19	14		19	14		19	14		19	
Concrete Slab or Deck Minimum R-Value	14		NA	14		NA	14		NA	14		NA	
Slab Edge or Basement Walls		Insulation			Insulation			Insulation			Insulation		
Minimum R-Value		0			0			0			0		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material. Minimum R-values are in addition to insulation in CMU voids.
- (c) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

Climate Zone 11b

Envelope Component	Low Fenestration Area (0-10% Window-Wall Ratio)					n Area Ratio)		Fenestration		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
	No	Metal	Wood	No	Metal	Wood	No	Metal	Wood	No	Metal	Wood	
Walls (a,b)	Framing o	•	or Framing			or Framing	Framing or	-	or Framing	Framing	•	or Framing	
Framed Minimum Cavity R-Value (c)	NA	11	11	NA	11	11	NA	11	11	NA	13	11	
Any Spacing Minimum Continuous R-Value (d) CMU, 8 in. or greater Minimum Cavity R-Value	NA NA	0 11	0 11	NA NA	0 11	0 11	NA NA	0 11	0 11	NA NA	3 11	0 11	
with Integral Insulation(e) Minimum Continuous R-Value	5	0	0	5	0	0	5 NA	0	0	5 5	0	0	
All Other Minimum Cavity R-Value	NA NA	11	11	NA NA	11	11	NA NA	11	11	NA NA	11	11	
Masonry Walls(f) Minimum Continuous R-Value	5	0	0	5	0	0	5	0	0	5	0	0	
	No Projection	3.25 Projection	3.5	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Decisetion	
Windows Maximum Solar Heat Gain Coefficient	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	
	Any	Any	Any	0.5	0.6	0.7	0.4	0.5	0.6	0.3	0.4	0.5	
Maximum U-Factor	Any	Any	Any	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	
Skylight (Limit 3% of Roof Area)													
Maximum U-Factor		0.8			0.8			0.8			0.8		
	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	
Roof	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss Minimum R-Value	18		25	19		25	23		30	23		30	
Nonwood Joist/Truss													
Minimum R-Value	19		25	20		25	24		30	24		30	
Concrete Slab or Deck Minimum R-Value	18		NA	19		NA	23		NA	23		NA	
Metal Purlin with Thermal Break			NA.			NA.			NA.			IVA	
Minimum R-Value	19		30	20		30	24		х	24		30	
Metal Purlin without Thermal Break Minimum R-Value	19		х	20		х	24		х	24		38	
	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	
Floor	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss Minimum R-Value	14		19	14		19	14		19	14		19	
Nonwood Joist/Truss Minimum R-Value	15		19	15		19	15		19	15		19	
Concrete Slab or Deck			-			-			-			-	
Minimum R-Value	15		NA	15		NA	15		NA	15		NA	
Slab Edge or Basement Walls		Insulation			Insulation			Insulation			Insulation		
Minimum R-Value		0			0			8			8		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Where values are shown for both cavity and continuous insulation, both requirements must be met.
- (c) Cavity insulation is insulation between framing members or furring strips and does not refer to integral insulation in CMUs.
- (d) Continuous insulation is insulation that is continuous across structural members, and its effectiveness is undimished by compression or bridging.
- (e) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material. Minimum R-values are in addition to insulation in CMU voids.
- (f) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>
- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

Climate Zone 12a

Envelope Component			Fenestratior 6 Window-Wall			um Fenestratio 25% Window-Wal			Fenestration 0% Window-Wa		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
M-H- (-)		No Framing or	Metal Framing	Wood or Framing	No Framing	Metal or Framing o	Wood or Framing	No Framing o	Metal r Framing	Wood or Framing	No Framing	Metal or Framing	Wood or Framing	
Walls (a) Framed	Minimum R-Value	Framing or NA	Framing 11	or Framing	Praming NA	or Framing of	or Framing	Framing o	r Framing	or Framing	NA	or Framing	or Framing	
Any Spacing	wiiniinum K-vaiue	NA.	"		NA.		"	NA			NA.	13		
CMU, 8 in. or greater with Integral Insulation(b)	Minimum R-Value	5	11	11	5	11	11	5	11	11	5	11	11	
All Other Masonry Walls(c)	Minimum R-Value	5	11	11	5	11	11	5	11	11	5	11	11	
maserny transfer			3.25	3.5		3.25	3.5		3.25	3.5		3.25	3.5	
Windows		No Projection	Projection	Projection	No Projection	Projection	Projection	No Projection	Projection	Projection	No Projection	Projection	Projection	
Maximum Solar F	leat Gain Coefficient	Any	Any	Any	0.6	0.7	Any	0.5	0.6	0.7	0.4	0.5	0.7	
	Maximum U-Factor	Any	Any	Any	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	
		,	,	,									***	
Skylight (Limit 3% of Roof Are	,													
	Maximum U-Factor		0.8			0.8			0.8			0.8		
		Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	
Roof All-Wood Joist/Truss		Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
	Minimum R-Value	16		19	19		25	23		30	23		30	
Nonwood Joist/Truss	Minimum R-Value	17		25	20		25	24		30	24		30	
Concrete Slab or Deck	Minimum R-Value	16		NA	19		NA	23		NA	23		NA	
Metal Purlin with Thermal Break		17												
Metal Purlin without Thermal Break	Minimum R-Value	1/		25	20		30	24		Х	24		30	
	Minimum R-Value	17		Х	20		Х	24		Х	24		38	
Floor		Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	
All-Wood Joist/Truss	Minimum R-Value	16		19	16		19	16		19	16		19	
Nonwood Joist/Truss	Minimum R-Value	16		19	16		19	16		19	16		19	
Concrete Slab or Deck	Minimum R-Value	16		NA	16		NA	16		NA	16		NA NA	
											.,			
Slab Edge or Basement Walls			Insulation			Insulation			Insulation			Insulation		
	Minimum R-Value		0			0			8			8		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material. Minimum R-values are in addition to insulation in CMU voids.
- (c) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

Climate Zone 12b

Envelope Component	Low Fenestration Area (0-10% Window-Wall Ratio)					n Area I Ratio)		Fenestration		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
	No	Metal	Wood	No	Metal	Wood	No	Metal	Wood	No	Metal	Wood	
Walls (a,b)	Framing o		or Framing			or Framing	Framing o	-	or Framing	Framing	•	or Framing	
Framed Minimum Cavity R-Value (c)	NA	11	11	NA	11	11	NA	11	11	NA	13	13	
Any Spacing Minimum Continuous R-Value (d) CMU, 8 in. or greater Minimum Cavity R-Value	NA NA	0 11	0 11	NA NA	0 11	0 11	NA NA	0 11	0 11	NA NA	3 11	0 11	
with Integral Insulation(e) Minimum Continuous R-Value	5	0	0	5	0	0	5 NA	0	0	5 5	0	0	
All Other Minimum Cavity R-Value	NA NA	11	11	NA NA	11	11	NA NA	11	11	NA NA	11	11	
Masonry Walls(f) Minimum Continuous R-Value	5	0	0	5	0	0	5	0	0	5	0	0	
	No	3.25	3.5 Deciration	No	3.25	3.5	No	3.25 Decidentian	3.5 Deciration	No	3.25	3.5 Deciseosis	
Windows Maximum Solar Heat Gain Coefficient	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	
	Any	Any	Any	0.5	0.6	0.7	0.4	0.5	0.6	0.3	0.4	0.5	
Maximum U-Factor	Any	Any	Any	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	
Skylight (Limit 3% of Roof Area)													
Maximum U-Factor		0.8			0.8			0.8			0.8		
	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	
Roof	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss Minimum R-Value	16		19	19		25	23		30	23		30	
Nonwood Joist/Truss						0.5	-						
Minimum R-Value Concrete Slab or Deck	17		25	20		25	24		30	24		30	
Minimum R-Value	16		NA	19		NA	23		NA	23		NA	
Metal Purlin with Thermal Break													
Minimum R-Value	17		25	20		30	24		X	24		38	
Metal Purlin without Thermal Break Minimum R-Value	17		х	20		х	24		х	24		49	
	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	
Floor	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss Minimum R-Value	15		19	15		19	15		19	15		19	
Nonwood Joist/Truss Minimum R-Value	16		19	16		19	16		19	16		19	
Concrete Slab or Deck			-	-		-	-		-			-	
Minimum R-Value	16		NA	16		NA	16		NA	16		NA	
Slab Edge or Basement Walls		Insulation			Insulation			Insulation			Insulation		
Minimum R-Value		0			0			8			8		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Where values are shown for both cavity and continuous insulation, both requirements must be met.
- (c) Cavity insulation is insulation between framing members or furring strips and does not refer to integral insulation in CMUs.
- (d) Continuous insulation is insulation that is continuous across structural members, and its effectiveness is undimished by compression or bridging.
- (e) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material. Minimum R-values are in addition to insulation in CMU voids.
- (f) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>
- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

Climate Zone 14a

Envelope Component		Fenestration % Window-Wall			m Fenestratio			Fenestration		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
Melle (- L)	No Framing o	Metal r Framing	Wood or Framing	No Framing o	Metal or Framing o	Wood or Framing	No Framing o	Metal	Wood or Framing	No	Metal	Wood or Framing	
Walls (a,b) Framed Minimum Cavity R-Value (c)	NA NA	13	or Framing 11	NA NA	13	11	NA NA	13	or Framing 11	NA	13	or Framing 11	
Any Spacing Minimum Continuous R-Value (d)	NA	3	0	NA	3	0	NA	3	0	NA	3	0	
CMU, 8 in. or greater Minimum Cavity R-Value with Integral Insulation(e) Minimum Continuous R-Value	NA 5	11 0	11 0	NA 5	11 0	11 0	NA 5	11 0	11 0	NA 5	11 0	11 0	
All Other Minimum Cavity R-Value	NA	U	11	NA	U	11	NA	U	11	NA	11	11	
Masonry Walls(f) Minimum Continuous R-Value	5	0	0	5	0	0	5	0	0	5	0	0	
	No	3.25	3.5	No	3.25	3.5	No	3.25	3.5	No	3.25	3.5	
Windows Maximum Solar Heat Gain Coefficient	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	
	Any	Any	Any	0.5	0.6	0.7	0.4	0.5	0.6	0.4	0.5	0.6	
Maximum U-Factor	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	
Skylight (Limit 3% of Roof Area)													
Maximum U-Factor		0.8			0.8			0.8			0.8		
	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	
Roof	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss Minimum R-Value	17		19	19		25	23		30	23		30	
Nonwood Joist/Truss Minimum R-Value	18		25	20		25	24		30	24		30	
Concrete Slab or Deck Minimum R-Value	17		NA	19		NA	23		NA	23		NA	
Metal Purlin with Thermal Break													
Minimum R-Value Metal Purlin without Thermal Break	18		30	20		30	24		Х	24		38	
Minimum R-Value	18		х	20		х	24		х	24		38	
	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	
Floor	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss Minimum R-Value	18		25	18		25	18		25	18		25	
Nonwood Joist/Truss Minimum R-Value	19		25	19		25	19		25	19		25	
Concrete Slab or Deck			NA NA				-		NA NA			-	
Minimum R-Value	19		NA	19		NA	19		NA	19		NA	
Slab Edge or Basement Walls		Insulation			Insulation			Insulation			Insulation		
Minimum R-Value		0			8			8			8		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Where values are shown for both cavity and continuous insulation, both requirements must be met.
- (c) Cavity insulation is insulation between framing members or furring strips and does not refer to integral insulation in CMUs.
- (d) Continuous insulation is insulation that is continuous across structural members, and its effectiveness is undimished by compression or bridging.
- (e) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material. Minimum R-values are in addition to insulation in CMU voids.
- (f) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>
- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

Climate Zone 15

Envelope Component	Low Fenestration Area (0-10% Window-Wall Ratio)					n Area Ratio)		Fenestration		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
	No	Metal	Wood	No	Metal	Wood	No	Metal	Wood	No	Metal	Wood	
Walls (a,b)	Framing o		or Framing			or Framing	Framing of	•	or Framing	Framing		or Framing	
Framed Minimum Cavity R-Value (c)	NA	13	11 0	NA	13	11	NA NA	13	11	NA	13	13	
Any Spacing Minimum Continuous R-Value (d) CMU, 8 in. or greater Minimum Cavity R-Value	NA NA	<u>3</u> 11	11	NA NA	3 11	0 11	NA NA	3 11	0 11	NA NA	7 13	4 11	
with Integral Insulation(e) Minimum Continuous R-Value	5	0	0	5	0	0	5	0	0	5	0	0	
All Other Minimum Cavity R-Value	NA NA	11	11	NA NA	11	11	NA NA	13	11	NA.	13	11	
Masonry Walls(f) Minimum Continuous R-Value	5	0	0	5	0	0	6	0	0	6	3	0	
Windows	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	
Maximum Solar Heat Gain Coefficient		-	,		•		•	,	,		•		
Maximum U-Factor	Any	Any	Any	0.5	0.6	0.7	0.5	0.6	0.7	0.4	0.5	0.7	
Maximum O-Pactor	0.7	0.7	0.7	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	
Skylight (Limit 3% of Roof Area)													
Maximum U-Factor		0.6			0.6			0.6			0.6		
	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	
Roof	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss Minimum R-Value	19		25	19		25	23		30	23		30	
Nonwood Joist/Truss													
Minimum R-Value	20		25	20		25	24		30	24		30	
Concrete Slab or Deck Minimum R-Value	19		NA	19		NA	23		NA	23		NA	
Metal Purlin with Thermal Break	19		NA NA	19		NA	23		NA	23		NA	
Minimum R-Value	20		30	20		30	24		x	24		38	
Metal Purlin without Thermal Break													
Minimum R-Value	20		Х	20		Х	24		Х	24		NA	
Floor	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	
All-Wood Joist/Truss Minimum R-Value	22		25	22		25	22		25	22		25	
Nonwood Joist/Truss			20			20			20			20	
Minimum R-Value	23		30	23		30	23		30	23		30	
Concrete Slab or Deck Minimum R-Value	22		NA	22		NA	22		NA	22		NA	
Slab Edge or Basement Walls		Insulation			Insulation			Insulation			Insulation		
Minimum R-Value		0			8			8			8		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Where values are shown for both cavity and continuous insulation, both requirements must be met.
- (c) Cavity insulation is insulation between framing members or furring strips and does not refer to integral insulation in CMUs.
- (d) Continuous insulation is insulation that is continuous across structural members, and its effectiveness is undimished by compression or bridging.
- (e) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material. Minimum R-values are in addition to insulation in CMU voids.
- (f) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>
- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.